Ixora Beckleri. Benth. Fl. Austr. III., 415. On the Coomora.

Timonius Rumphii. Dc. Prod. IV., 461. At Peel Island and Stradbroke Island.

Knoxia corymbosa Willd. Spec. Pl. I., 582.

At Mudgeraba, and Knapp's Creek. Even in these two places it seems to be scarce.

Asperula oligantha F. v. M. in Heerl. Kamid. Arch. IV.

The variety conferta, once acknowledged as a distinct species is very common on the flats of the Upper Lagoon. Another variety elongata was gathered by the writer at Stanthorpe. Under the name A. oligamtha Baron von Müeller, in Frag. IX., 187, has collected A. subsimplex Hook. A. scoparia, Hook. A Gunui, Hook. A pusilla, Hook. A. mimina, Hook.

Galium australe. Dc. Prod. IV., 608.

On the Logan. Under Galium australe, the forms. aporine, and albescens are now included; and under G. umbrosum of Solander we have varieties of G. geminifolium F. v. M. Gaudichaudi Dc. and ciliare Hook. Without much hesitation the genera Galium and Asperula may be thrown into one, as they do not present important generic differences. The reduction of species in both genera may portend generic reduction.

Contribution to a Knowledge of the Fishes of New Guinea, No. 4.

BY WILLIAM MACLEAY, F.L.S., &c.

In my three previous papers on this subject, I gave a list of all the fishes collected by Mr. Goldie at and about Port Moresby, and a few places on the coast lying north and west from it; I now give the results of his labours in the extreme south east of New Guinea, including collections made at Hood Bay and eastward to the D'Entrecastreaux Group of Islands. A few only are from the Gulf of Papua.

PERCIDÆ.

275. PSAMMOPERCA WAIGIENSIS. Cuv and Val.

Macl. Cat. Proc. Linn. Soc., N. S. Wales, Vol. 5, p. 307.

P. datnioides Richards, Voy., Ereb. and Terr., p. 116, pl. 57, fig. 1-2.

"Ganu Ganu" of the natives.

Hab.—Gulf of Papua.

276. Anthias Mortoni. n. sp.

D. 10/17. A. 3/8. L. lat. 40, L. tr. 4/13.

Height of body one-fourth of the total length; snout shorter than the diameter of the eye; mouth oblique, small, the maxillary broad and triangular, reaching to below the middle of the eye; the space between the eyes convex, and equal to nearly two diameters of the orbit. The first dorsal spine is small, the second a little longer, the third is produced into a filament, and is thrice the length of the following ones; the second and third anal spines are about equal in length, the third and fourth rays are elongate; the caudal fin is long and forked, with the lobes produced. Mr. Goldie's description of the colouring, is "slate blue, with crimson stripe on gills, and flame colour fins and tail, the latter has a light edge. Eye green."

" Maru-watti-kerara" of the natives.

Hab. —Pitt Bay, Moresby Island.

277. SERRANUS MICRODON. Bleek.

Epinephelus microdon, Bleek, Atl. Ichth. Perc., p. 57, tab. 3, fig. 3.

"Curan" of the natives.

Hab.—Engineer group.

278. SERRANUS HOWLANDI. Gunth.

Journ. Mus. Godff. Heft. 3, p. 8, Tab. IX., fig. B.

"Bulavu" of the natives.

Hab.—Hood Bay.

279. SERRANUS DAMELII. Gunth.

Ann. and Mag. Nat. Hist. 1876, Vol. XVII.. p. 391. Casteln, Proc. Linn. Soc., N. S. Wales, vol. 3, p. 365.

"Keborria" of the natives.

Mr. Goldie found this fish in fresh water at Normanby Island, D'Entrecastreaux Group. It seems to me to be identical with our black rock cod.

Serranus Hædtii, argus and urodelus, were also taken in or near China Straits, but I do not number them as they have been already recorded from other parts of New Guinea.

280. MESOPRION MARGINIPINNIS. n. sp.

D. 10/13. A. 3/7. L. lat. 50.

The height of the body is about equal to the length of the head, and is rather less than a third of the total length. The profile is straight, the eye large, the snout is a little longer than the diameter of the orbit, and the space between the eyes is about equal to it. The maxillary reaches almost to the vertical from the middle of the eye. The top of the head and the præorbital are scaleless, the præoperculum is finely denticulated, and has a broad shallow notch above the angle; the operculum is unarmed, and the coracoid is serrated. The scales are small, adherent and ciliated. The dorsal fin after the first spine is nearly uniform in height throughout, the longest spine (the fourth) is in height rather less than one-third of the height of the body, the second anal spine is slightly thicker and about the same length as the third; the pectorals are slightly falcate and reach beyond the vent; the caudal is emarginate. The colour seems to have been silvery-grey, darker on the back than on the sides and belly, the scales on the sides seem to have had a pearly spot in the centre of each giving a striped appearance to the fish; the dorsal fin has a deep black margin along its whole length with the extreme tips of the rays white, the caudal is blackish with white tips; the other fins are yellow. Length, 7 inches.

Hab.—Normanby Island. From fresh water.

281. Mesoprion sexfasciatus. n. sp.

D. 10/13. A. 3/7. L. lat. 50.

Of compressed form; the height of the body is one third of the total length; the profile is straight, the space between the eyes rather flat, and less than the diameter of the orbit, which is about equal to the length of the snout. The canine teeth in the upper jaw are large, the maxillary reaches to below the middle of the eye, the præoperculum is minuately serrated on the posterior limb and finely denticulated at the angle and on the lower limb, the notch above the angle is very slight. The dorsal fin is very slightly notched, the second spine of the anal is stronger but not longer than the third, the pectorals reach to the vent, the caudal is truncate. The colour according to Mr. Goldie, is greyish green, there are six narrow light coloured faseiæ on each side; the fins and tail are according to the same authority reddish, but there has evidently been some black on the anal fin.

" Malabrunna" of the natives.

A small fish, said to be from fresh water. Normanby Island. Mesaprian rubens, Goldiei, parvidens, fulviflamma, monostigma, and vitta were also got at Hood Bay.

282. Grammistes orientalis. Bl.

Gunth. Cat. Vol. 1 p. 171. Macl. Cat. Proc. Linn. Soc. N. S. Wales, Vol. 5, p. 326.

"Arctiatoma" of the natives. Hood Bay,

283. Ambassis commersoni.

Gunth. Cat. 1 p. 223. Proc. Linn. Soc, N. S. Wales, Vol. 5, p. 337.

Milne Bay. From fresh water.

284. Apogon buruensis. Bleek.

Atl. Ichth. Perc. p. 102, tab. 75, fig. 2. Gunth. Cat. 1, p. 245. From fresh water. Normanby Island.

285. Apogon Macropterus. Cur. and Val.

Bleek, Atl. Ichth. Perc. p. 103, Tab. 68, fig. 2. Gunth. Cat. 1, p. 244.

Syn. A. fucatus, macropteroides, and Bleekeri. Gunth. Cat. Fish.

286. Apogon Trimaculatus. Cuv. and Val.

Gunth. Cat. 1 p. 233. Less. Voy. Coq. Zool. p. 237.

Apogon Amboinensis previously recorded, was also included in this collection.

GENUS TETRACENTRUM.

Six branchiostegals. Teeth viliform with an outer series of larger ones; teeth on the vomer and palatine bones. One dorsal fin; the anal fin with four spines. Operculum without spine; præoperculum with a double denticulated edge. Scales large, rather deciduous.

I place this genus with that section of the Percide named by Dr. Gunther *Apogonina*, on account of a general resemblance in form, its large deciduous scales, and double-ridged praeoperculum. The continuous dorsal fin, and four spined anal, are however foreign to the group.

287. Tetracentrum apogonoides. n. sp.

D. 9/10. A. 4/9. L. lat. 30. L. tr. 4/7.

Body elevated, compressed, the height being about one-half the length, exclusive of the caudal fin; the length of the head is one-third of the same. The profile from the first dorsal spine to above the eye, is much curved and forms a narrow ridge, above the eye it becomes broad and concave, and towards the snout convex and swollen. The eye is large, its diameter being about equal to the space between the eyes. The mouth is oblique, the lower jaw rather prominent; the maxillary reaches to the vertical from the anterior third of the eye. The inner double præopercular edge is strongly toothed at the angle, the outer is very strongly denticulated along its entire edge, the suborbital, præorbital, interoperculum and sub-operculum, are also denticulated on the lower edges. The dorsal fin takes its rise a little behind the vertical from the base of the pectorals, the first spine is less than half the size of the second, the ninth is a little longer than the eighth. They are all strong and curved a little backwards. spines are strong, the first less than half the length of the others. The caudal fin is somewhat long, with the lobes rather produced.

The scales cover the whole body except the top of the head, a single row of smaller scales protects the base of the soft dorsal and anal fins. The colour of the larger specimens is uniform dull silvery gray, but young specimens show a black blotch above the anal spines, and something resembling a black vitta on the posterior portion of the lateral line; there seems also to have been a black opercular patch.

A number of specimens were brought from Goldie River and other fresh water streams, varying in size from 7 to 2 inches in length.

288. Dules Guamensis. Cur. & Val.

Gunth. Cat. 1, p. 269. Dum. D'Urv. Voy. Pole Sud. p. 42, Pl. 3, fig. 1.

"Paamana" of the natives.

Taken in fresh water, Normanby Island.

289. Dules papuensis. n. sp.

D. 10/11. A. 3/11. L. lat. 42.

Height of body one-third of the total length, and length of head about one-fourth of the same. Eyes large, the space between them slightly convex and about equal in width to the diameter of the orbit; snout short, rounded; mouth oblique, the lower jaw slightly the longest, the maxillary reaches to the vertical from the middle of the eye, the preorbital is very narrow and serrated, the preoperculum is minutely serrated on the inferior edge; the operculum has two spines. The first spine of the dorsal fin is very small, the fourth and fifth are the longest, the tenth is nearly twice the length of the ninth; the anal spines are of about equal thickness, the third longest; the caudal is emarginate. The colour is a steel blue towards the back, and silvery on the sides and belly, with a few scattered blackish spots on the side towards the tail, the soft dorsal and anal fins are black-edged, and the caudal is narrowly tipped with black. Length, 7 inches.

Hab.—Goldie River. Fresh water.

Dules ciliatus, from fresh water, Milne Bay, also formed part of the collection.

290. Therapon nasutus. n. sp.

D. 12/9. A. 3/8. L. lat. 58.

The height of the body is more than one-third of the total length, and considerably more than the length of the head. profile from the occiput to the snout is straight, the space between the eves is flat and its width is more than the diameter of the orbit, the snout is long and roundly pointed, the distance from the eye, which is large, to the snout nearly equals two diameters of the orbit; the maxillary only reaches to the vertical from the anterior margin of the eye, the lower jaw is shorter than the upper and shuts into it; the preorbital is large, naked, and without serration; the præoperculum is strongly denticulated and without scales on the limb, the operculum is armed with two acute spines placed rather close together; the coracoid is of truncated form, and is strongly denticulated. The spines of the dorsal fin are very strong, the first is small, the fourth and fifth are the longest, they can all be received into a scaly sheath on the back grooved on each side; the anal spines are also very strong, the second the largest; the caudal is slight emarginate.

Colour silvery grey, a broad band through the anal fin, and the anterior rays of the ventrals, blackish. Length, 11 inches.

From fresh water, Normanby Island.

291. Therapon interruptus. n. sp.

D. 12/10. A. 3/8. L. lat. 50.

The height of the body is less than one-third of the total length, and very little more than the length of the head. The profile is of uniform convexity from the dorsal fin to the snout, which terminates in a rounded point. The eyes are of moderate size, the space between convex, and in width equal to nearly twice the diameter of the orbit; the distance from the eye to the point of the snout is rather more than twice the diameter of the orbit. The lips are thick, the upper one completely overlaps the lower, the maxillary reaches to below the anterior margin of the eye, and is only slightly visible above the posterior part of the upper lip. The præorbital is broad, naked, and apparently without serration, the

præoperculum is regularly but not strongly denticulated; the operculum has two spines, the upper one small; the coracoid is rounded behind and with a few denticulations. The dorsal spines are moderately strong, the first minute, the fifth and sixth longest; the anal spines are very strong, the second largest; the caudal fin is slightly emarginate. The colour is silvery grey, with three longitudinal more or less interrupted brown bands on each side below the lateral line, and four or five vertical brown blotches above the lateral line. Length, 10 inches.

Fresh water. Normanby Island.

292. Therapon chalybeus. n. sp.

D. 12/10. A. 3/8. L. lat. 60.

Of compressed form. Height of the body one-third, and length of head one-fourth of the total length. Profile almost straight, a very slight prominence over the eyes. Eyes large, distance from one another about equal to the diameter of the orbit, the length of the snout about the same. The mouth is small, the maxillary not nearly reaching to below the anterior margin of the eye; the præorbital is serrated; the præoperculum is strongly denticulated particularly towards the angle; the operculum is two-spined, the upper one small; the coracoid and scapular are finely denticulated. The dorsal spines are moderate, the fifth longest, the anal spines are very strong, the second largest; the caudal is emarginate. The colour seems to have been of a chalybeate hue all over, the fins hyaline with some black on the anal and tip of the ventrals. Length, 4 inches.

Fresh water. Normanby Island.

293. THERAPON TRIMACULATUS. n. sp.

D. 13/11. A. 3/11. L. lat. 50.

Height of body half the length excluding the caudal fin. The profile is convex, the space between the eyes is rounded and equals two diameters of the orbit, the snout is rounded, the lips thick, the maxillary reaches to below the anterior margin of the eye, and is rounded behind; the præorbital is unarmed, the præoperculum is slightly serrated, the lower of the two opercular spines is rather

large: the coracoid is large and serrated. The dorsal spines are strong, the fifth and sixth longest, the anal spines very strong but not very long, the third quite as long as the second; the soft dorsal and anal fins have the middle rays longest, giving them a rounded appearance; the caudal fin is very slightly emarginate. The colour seems to have been dark brown on the back and sides and yellow on the belly, every scale appearing to have a central yellow or pearly spot, increasing in size towards the belly, two or three indistinct longitudinal blackish bands are discernable on the sides on the posterior portion of the body, there are three indistinct black spots placed vertically on the base of the caudal fin; the extremities of the soft dorsal, anal and caudal fins seem to have been whitish. Length, 8 inches.

Fresh water. Goldie River.

294. THERAPON CAUDOVITTATUS. Richards.

Voy. Ereb. and Terr. Fish., p. 24, pl. 18, fig. 3-5. Gunth. Cat. 1, p. 284.

Gulf of Papua.

Therapon servus and Cuvieri, were also in this collection.

295. DIAGRAMMA PARDALIS. Cuv. and Val.

Gunth. Cat. 1, p. 323. D. chætodontoides, Lacep. Gunth. Cat. 1, p. 326.

Plectorhynchus chætodontoides, Bleek. Atl. Ich. Perc., tab. 23, fig. 3, and tab. 25, fig. 2.

"Deboro-gabu-gabu" of the natives.

Hab.--China Straits.

296. DIAGRAMMA LESSONII. Cuv. and Val.

Gunth. Cat. 1, p. 329. Lesson. Vov. Coq. Zool., vol. 2, p. 199, pl. 24.

Plectorhynchus Lessoni, Bleek. Atl. Ichth. Perc., p. 19, tab. 39, fig. 3.

"Kidali" of the natives.

Hab .- Hood Bay.

297. DIAGRAMMA HÆMATOCHIR. Bleek.

Gunth. Cat. 1, p. 332.

Dr. Bleeker first described this species, but subsequently in his Atlas Ichthyologique, makes it a synonym of *D. Goldmanni*. I believe the species to be distinct.

Hab.—Hood Bay.

299. DIAGRAMMA POLYTÆNLA. Bleek.

Atl. Ichth. Perc., p. 23, tab. 17, fig. 3. Gunth. Cat. 1, p. 23.

" Manaha-cila-cila" of the natives.

China Straits.

298. DIAGRAMMA RADJA. Bleek.

Atl. Ichth. Perc., p. 20, tab. 14, fig. 1. Gunth. Cat. 1, p. 331. *Hab* — Hood Bay.

300. DIAGRAMMA UNICOLOR. n. sp.

D. 12/20. A. 3/7. L. lat. 70.

The height of the body is about $2\frac{1}{2}$ times in the total length, the length of the head four times. The eyes are large, the space between them convex, covered with minute scales, and equal in width to about one and a-half diameter of the orbit; the distance from the eye to the extremity of the snout, is about two diameters of the orbit. The mouth is small, the lips thick, the maxillary does not reach to the vertical from the eye, the cheek is clothed with minute scales, the preoperculum is minutely serrated on the posterior limb; the dorsal spines are strong, the fourth and fifth largest; the second and third anal spines about equal, the soft dorsal is rounded behind, the anal pointed; the caudal is spreading and truncate. Colour uniform, dark gray in spirits, with a greenish yellow tinge towards the belly. Length, 16 inches.

"Sopa-sopa" of the natives.

China Straits.

301. Gerres Poeti. Cuv. and Val.

Gunth. Cat. 1, p. 341. Bleek. Atl. Ichth. Perc., tab. 77, fig. 1. From river in Milne Bay.

302. Synagris furcosus. Cuv. and Val.

Gunth. Cat. 1, p. 373. Macl. Cat. Fish., P.L.S., N. S. Wales, vol. 5, p. 383.

"Rea-rea" of the natives.

Pitt Bay. Moresby Island,

303. Cæsio Lunaris. Cuv. and Val.

Gunth. Cat. 1, p. 390. Less. Voy. Coq. Zool. 3, p. 186, pl. 34. Bleek. Atl. Ichth. Perc., p. 37, tab. 56, fig. 4.

Exact locality not given.

304. Cæsio Chrysozona. Cuv. and Val.

Gunth. Cat. 1, p. 392, Bleek. Atl. Ichth. Perc., p. 39, tab. 29, fig. 2.

"Gawanni" of the natives.

Pitt Bay.

This may be a distinct species, there is a second golden longitudinal band above the first, not mentioned in the descriptions and plates of *C. chrysozoma*.

 $Cwsio\ corrulaureus\ was\ also\ taken\ at\ the\ Eastern\ end\ of\ New$ Guinea.

SQUAMIPINNES.

305. CHÆTODON ORNATISSIMUS. Cuv. and Val.

Gunth. Cat. 2, p. 15. Less. Voy. Coq. Zool. 2, p. 179, pl. 30, fig. 1. Bleek. Atl. Ichth. Chætod., tab. 13, fig. 2.

South East New Guinea.

306, CHÆTODON CITRINELLUS. Cuv. and Val. Gunth. Cat. 2, p. 33. Jour. Mus. Godeff. Heft. 5, p. 47, pl. 35, fig. B.

South East New Guinea.

307. CHÆTODON MELANOTUS. Cuv. and Val.

Bleek. Atl. Ichth. Chætod., tab. 14, fig. —, C. Reinwardtii. Gunth. Cat. 2, p. 23.

South East Coast.

308. Chætodon plebejus. Cuv. and Val Gunth. Cat. 2, p. 5. Journ. Mus. Godeff, Heft. 5, p. 35, pl. 32, fig. B. South East Coast. Chætodon ephippium, Rafflesii, speculum, unimaculatus, baronessa and lineolatum, all previously recorded from Port Moresby, were also taken on the South East Coast.

309. Heniochus macrolepidotus L.

Gunth. Cat. 2, p. 39. Bleek. Atl. Ichth. Chætod., tab. 5, fig. 1. "Kino-kino" of the natives. Hood Bay.

310. Heniochus chrysostomus. Cuv. and Val. Gunth. Cat. 2, p, 41. Bleek. Atl. Ichth. Chætod., tab. 4, fig. 4. Hood Bay.

311. Holacanthus semicirculatus. Cuv. and Val. Gunth. Cat. 2, p. 53. Less. Voy. Coq. Poiss., p. 173, pl. 30, fig. 3. Bleek. Atl. Ichth. Chætod., tab. 8, fig. 5. "Tua-mari" of the natives. Engineer group.

312. Holacanthus navarchus. Cuv. and Val. Gunth. Cat. 2, p. 49. Bleek. Atl. Ichth. Chætod., tab. 9. fig. 3. South Cape.

313. Holacanthus diacanthus. Bl.

Gunth. Cat. 2, p. 48. Bleek. Atl. Ichth. Chætod., tab. 6, fig. 3. "Umure" of the natives. South Cape.

Specimens of *Holacanthus bicolor*, from D'Entrecastreaux Group; *Scatophagus argus* from Normanby Island, and *Toxotes jaculator* from Normanby Island, were also in the collection.

MULLIDÆ.

314. Mulloides flavolineatus. Lacep.

Gunth. Cat. 1, p. 403. Bleek. Atl. Ichth. Mull., tab. 4, fig. 3. "Duru-apata" of the natives. Hood Bay.

315. Upeneus semifasciatus. n. sp.

D. 8/9. A. 7. L. lat. 31. L. tr. $2\frac{1}{2}/6\frac{1}{2}$.

The height of the body is about one-third of the total length, the length of the head a little less; the profile is very convex, the space between the eyes quite two diameters of the orbit in width, and the distance between the eye and the snout, two diameters and

a-half; the mouth is small, the lips thick, the maxillary broad, and not reaching to the level of the eye; a flat acute opercular spine; the longest dorsal spine, rather more than half the height of the body; caudal fin emarginate. Colour red or yellow, with two broad brown bands extending from the back to below the middle of the sides, under the spinous and soft dorsal fins respectively.

"Igomar" of the natives. Hood Bay.

316. Upeneus filamentosus. n. sp.

D. 8/9. A. 7. L. lat. 28. L. tr. 2/5.

Height of body one-fourth of the total length; length of head greater than the height of the body, profile straight, space between the eyes a little convex, and as wide as two diameters of the orbit. Snout long and rather pointed, the distance from the eye to the snout being equal to four diameters of the orbit; the mouth is small; the lips thick; teeth strong and blunt. The spinous dorsal terminates in filaments, the third spine equals the height of the body. Colour pink, with yellow and blue lines about head and soft dorsal. Length, 9 inches.

" Mara-aga of the natives. Hood Bay.

Upeneus barberinoides, multifasciatus, and tragula were also brought from Hood Bay.

SPARIDÆ.

317. LETHRINUS HÆMATOPTERUS. Bleek.

Bleek. Atl. Ichth. Perc., p. 112, tab. 57, fig. 4.

"Carri-carri" of the natives. Engineer group.

Specimens of Lethrinus lentjanus, and ornatus were also got.

318. Pemilepterus waigiensis. Quoy and Gaim.

Gunth. Cat. 1, p. 498. Bleek. Atl. Ichth. Chætod., tab. 2, fig. 2. "Saborre" of the natives. Engineer group.

319, SPHÆRODON GRANDOCULIS. Forsk.

Gunth. Cat. 1 p. 465. Bleek. All. Ichth. Perc. p. 105, tab. 21, fig. 1.

"Mattabossi" of the natives. Engineer Group.

320. Chrysophrys hasta. Bl.

Gunth. Cat. 1 p. 490. Bleek. Atl. Ichth. Perc. p. 103, tab. 67, fig. 3.

"Dubu" of the natives. Gulf of Papua.

CIRRHITIDÆ.

321. CIRRHITES ARCATUS. Cuv. and Val.

Gunth. Cat. 2, p. 72. Bleek. Atl. Ichth. Perc. p. 144, tab. 25, fig. 3.

South East Coast.

SCORPÆNIDÆ.

322. Scorpæna cirrhosa. Cuv. and Val. Gunth. Cat. 2 p. 120. Bleek. Atl. Ichth. Scorp. tab. 3 fig. 6. South East Coast.

323. Scorpæna diabolus Cuv. and Val. Gunth. Cat. 2, p. 117. Bleek. Atl. Ichth. Scorp. tab. 1, fig. 5. "Pacura" of the natives. Hood Bay.

TEUTHIDIDÆ.

Of this family, one species T. vermiculata was taken in fresh water on Normanby Island.

BERYCIDÆ.

324. Myripristis microphthalmus. Bleek.

Gunth. Cat. 1 p. 24. Bleek. Alt. Ichth. Trachich. tab. 4, fig. 2. "Kurulu" of the natives. Hood Bay,

Of this Family Myripristis adustus and Holocentrum sammara and rubrum, were also taken in Hood Bay.

KURTIDÆ.

325. Pempheris Otaltensis. Cuv. and Val. Gunth. Cat. 2 p. 508. Bleek. Atl. Ichth. Pempher. tab. 1 fig. 4. "Iga-iga" of the natives. Hood Bay.

ACRONURIDÆ.

326. Acanthurus glaucopareius. Cuv. and Val. Gunth. Cat. 3 p. 339. Jour. Mus. Godeff, Heft. 9 p. H. 4, Pl. 71, fig. a.

"Wanaka of the natives." Hood Bay.

327. Acanthurus Dussumieri. Cuv. and Val.

Gunth. Cat. 3 p. 335. Jour. Mus. Godeff. Heft. 9, p. H. 2, Pl. 72.

"Dabua" of the natives. Millport Harbour.

Acanthurus matoides, lineatus, hepatus, and olivaceus were also taken in the vicinity of Hood Bay. Also Naseus unicornis, and Marginatus.

CARANGIDÆ.

328. CARANX BOOFS. Cuv. aud Val.

Gunth. Cat. 2 p. 431.

"Pogari" of the natives. China Straits.

329. PSETTUS ARGENTEUS. L.

Gunth. Cat. 2 p. 487. Richards. Voy. Ereb. and Terr. Fishes p. 57, Pl. 35, fig. 1-3.

"Gémo" of the natives. Normanby Island.

330. EQUULA EDENTULA. Bl.

Gunth. Cat. 2 p. 498. Richards. Voy. Ereb. and Terr. Fishes p. 137, pl. 59, fig. 12-14

" Pya-Pya" of the natives. Normanby Island.

SCOMBRIDÆ.

331. Cybium Commersonii. Lacep.

Gunth. Cat. 2 p. 370. Macl. Proc. Linn. Soc. N. S. Wales, Vol. 5, p. 558.

Hood Bay. Caught on trolling line.

Specimens of Scomber loo were got in Pitt Bay, Moresby Island.

332, ECHENEIS NAUCRATES. L.

Gunth. Cat. 2, p. 384. Macl. Proc. Linn. Soc. N. S. Wales, Vol. 5, p. 561.

Hood Bay.

MALACANTHIDÆ.

A specimen of *Malacanthus latovittatus* said to be from fresh water. Goldie River.

BATRACHIDÆ.

333, BATRACHUS DUBIUS. White.

Gunth. Cat. 3 p. 169. Richards. Voy. Ereb. and Terr. Fishes p. 16, Pl. 10,

South East Coast. Apparently identical with the Australian species.

COTTINA.

Young specimens of Platycephalus Quoyi from several places.

GOBIIDÆ.

334, Gobius ornatus. Rüpp.

Gunth. Cat. 3 p. 21. *G. interstinctus* Richards. Voy. Ereb. and Terr. p. 3, Pl., 5 figs. 3-6.

"Sumato" of the natives. Milne Bay.

335, Gobius maculipinnis. n. sp.

D. 7/11. A 10. L. lat. 26.

The height of the body is one sixth of the total length, and is about equal to the length of the head; the snout is convex and obtuse; the eyes are near the top of the head, and less than half their diameter apart; the space between the eye and the snout is equal to one and a-half diameter of the orbit. The mouth is small, the cheek is scaley with two impressed lines running from the maxillary backwards for some distance; the scales are a little pointed at the free end, with lines radiating backwards; the finrays all more or less terminate in filaments, the second dorsal spine very elongate, the caudal is long and pointed. The colour seems to have been greenish yellow, with bluish spots; the fins are all spotted brown and white, excepting the ventrals and anal, which are tinged with black.

Normanby Island, Fresh water.

336. Gobius circumspectus. n. sp.

D. 7/10. A. 9. L. lat. 30.

Height of body one-sixth and length of head one-fourth of the total length. Head rather flat, terminating in a rounded muzzle, the lower jaw broader and longer than the upper; the eyes are close

together (about a third of their diameter apart) and situated on the top of the head; the teeth are numerous, the outer series very acute; the cheek is naked, a few scales on the upper part of the operculum. The second dorsal spine is long, terminating in a filament, the caudal is rounded behind. Colour greenish-yellow, with indistinct darker markings, a large ill-defined brown spot on the root of the tail, the dorsal and caudal fins brown spotted.

Milne Bay. Fresh water.

336. APOCRYPTES FASCIATUS. n. sp.

D. 6/15. A. 15. L. lat. 56.

Of compressed form; the height of the body and length of the head are about one-fourth of the total length. The head is less compressed than the body, convex between the eyes and rounded on the snout; the eyes are moderate, less than a diameter apart, and about a diameter from the snout; there is a strong bony elevation on the front orbital margins; the mouth is oblique, the gape extending to below the middle of the eye, the cheek is naked or nearly so. The dorsal spines are filamentose, the connecting membrane not nearly extending to the middle; caudal rounded. Colour dark with six broad darker fasciæ on the sides; soft dorsal and anal with small blue or light coloured dots.

338. Eleotris immaculatis. n. sp.

D. 6/10. A. 9. L. lat. 63.

Form depressed in front, compressed towards the tail; height one-fourth of the total length without the caudal fin. Length of head one-third of the total length with the caudal fin. Back from the dorsal fin to the snout very broad and nearly flat, becoming somewhat concave between the eyes, which are quite $4\frac{1}{2}$ diameters apart; the snout is broad and rounded, and without scales, the lower jaw considerably exceeding the upper, the cleft of the mouth extends to the vertical from the posterior margin of the eye. The caudal fin is rounded. The colour (in spirits) is of a dull uniform brown, but in life probably each scale had a pearly lustre. A large heavy fish 18 inches long.

Kéremma River. Gulf of Papua.

339, Eleotris ophiocephalus. Cuv. and Val.

Gunth. Cat. 3, p. 107. Journ. Mus. Godeff. Heft. 13, p. 185, Pl. 112, fig. A.

"Wénému" of the natives. Normanby Island. Fresh water,

340. Aristeus Goldiei. n. sp.

D. 1/5, 1/13. A. 1/22. L. lat. 34.

In stature like A rufescens, and indeed resembling that species in everything excepting colour and the number of fin rays. The colour in this species is silvery all over, but darker towards the back, a broad black line extends from the snout, under and above the eye to the tail.

This fish was got in abundance in the Goldie River; the largest specimens were under 4 inches in length.

BLENNIIDÆ.

341. BLENNIUS PERIOPHTHALMOIDES. n. sp.

D. 12/16. A. 18. V. 2.

Body much compressed, its height about one-sixth of the total length. Head as high as long, and broader than the length, quite round in front, and with two very prominent eyes nearly together on the top of the head. Mouth terminal, extending to below the middle of the eye. Gill membranes entirely united below. Pectoral fins strong, of 14 simple rays; dorsal distinctly notched; caudal rounded. All the fins seem to have been marked with alternate brown and white bars, giving them a spotted appearance, according to Mr. Goldie the body was of an inky-drab-colour.

"Pici" of the natives. Dufaure Island.

SPHYRAENIDÆ.

Sphyrana Forsteri, previously recorded. Hood Bay.

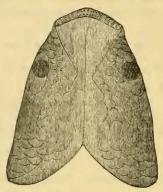
MUGILIDÆ.

342, MUGIL COMPRESSUS. Gunth.

Gunth. Cat. 3, p. 451. Macl. Proc. Linn. Soc. N. S. Wales, Vol. 4, p. 421.

Normanby Island. Fresh water.

343. Mugil papillosus. n. sp.



D. 4. 1/7. A. 3/9. L. lat. 38.

The height of the body is one-fourth of the total length; the head is depressed, the body compressed, and the back rather more convex than the belly. The eyes are large, near the snout, nearly two diameters apart, and without adipose membrane. The snout is rounded in front and above. The upper lip is thick in the middle where it fits into a broad emargination of the head, and has along its lower edge a groove filled with verrucose papillæ as shown in the accompanying woodcut. The lower jaw is very obtusely angled at the symphysis, but is acutely angled at the sides; no open space on the chin. The first spine of the anal fin is very short; the caudal is emarginate. Colour silvery, darker along the back; a black spot above the root of the pectoral fin. "Nyiari" of the natives.

Normanby Island. Fresh water.

344. AESCHRICHTHYS GOLDIEI. Macleay.

Proc. Linn. Soc. N. S. Wales, vol. 8, p. 2. Goldie River. Fresh water.

FISTULARIDÆ.

345. FISTULARIA SERRATA. Cur.

Gunth. Cat. 3, p. 533. Macl. Cat., Proc. Linn. Soc., N. S. Wales, vol. 6, p. 49. Hood Bay.

CENTRISCIDÆ.

346. AMPHISILE STRIGATA.

Gunth. Cat. 3, p. 528.

South East Coast.

POMACENTRIDÆ.

347. Amphiprion melanopus. Bleek.

Gunth. Cat. 4, p. 8. Bleek. Atl Ichth. Pomac., tab. 2, fig. 7. D'Entrecastreaux Group.

348. Amphiprion Papuensis. n. sp.

D. 10/14. A. 2/12. L. lat. 50.

The height of the body is one-half of the length including the caudal fin. The colour is black, the muzzle and breast, as far as the root of the ventrals are yellowish, the soft dorsal, tail and caudal fin are white, and there are two broad cross bands, as in A. bicinctus, one from the nape to the edge of the sub-operculum, the other across the body, from the back part of the spinous dorsal to the vent.

"Becua" of the natives. D'Entrecastreaux Group.

349. GLIPHIDODON NIGRIFRONS. n. sp.

D. 13/11. A. 2/11. L. lat. 26.

Height of body more than half the total length including the caudal fin, head very round in front and rather flat between the eyes, the space between them being equal to nearly two diameters of the orbit. The snout is shorter than the diameter of the eye; the mouth is very small. The second anal spine is large and strong. The colour seems to have been an uniform silvery-greenish, with darker marks on the scales of the upper and anterior portions of the body; the forehead is black.

South East Coast.

350. GLIPHIDODON BIMACULATUS. n. sp.

D. 12/11. A. 2/12. L. lat. 26.

Height of body half the total length. Eyes large, close to the snout, and about a diameter apart. Mouth very small. Colour

silvery-gray, a black spot above and below the root of the tail, extremities of dorsal and anal fins, blackish. Length, $1\frac{1}{2}$ inch.

South East Coast.

Premnas biaculeatus and Pomacentrus prosopotænia, were also taken in Hood Bay.

LABRIDÆ

351. LABROIDES PARADISEUS. Bleek.

Atl. Ichth. Labr., tab. 44, fig. 2. Gunth. Cat. 4, p. 119. South East Coast.

352. DUYMERIA NEMATOPTERA. Bleek.
Atl. Ichth. Labr., p. 70. tab. 23, fig. 5. Gunth. Cat. 4, p. 123.
South East Coast.

353. CIRRHILABRUS SOLORENSIS. Bleek.

Atl. Ichth. Labr., p. 76, tab. 23, fig. 3. Gunth. Cat. 4, p. 124.

Pitt Bay.

354. Anampses cæruleopunctatus. Rüpp. Bleek. Atl. Ichth. Labr., p. 104, tab. 24, fig. 2. Gunth. Cat. 4, p. 135.

"Aviko" of the natives. Hood Bay.

355. Anampses pterophthalmus. Bleek.

Atl. Ichth. Labr., p. 102, tab. 24, fig. 3. Gunth. Cat. 4, p. 138. "Yessuma" of the natives. Engineer group.

356. Stethojulis trilineata. Bl.

Bleek. Atl. Ichth. Labr., p. 131, tab. 43, fig. 3. Gunth. Cat. 4, p. 140.

Millport Harbour.

357. Stethojulis phekadopleura. Bleek. Atl. Ichth. Labr., p. 134, tab. 43, fig. 5. Gunth. Cat. 4, p. 143. South Cape.

358. Stethojulis axillaris. Quoy. and Gaim.

Bleek. Atl. Ichth. Labr., p. 136, tab. 44, fig. 7. Gunth. Cat. 4, p. 142.

Pitt Bay.

359. Stethojulis. Albovittata. Lacep.

Bleek. Atl. Ichth. Labr., p. 132, tab. 44, fig. 5. Gunth. Cat. 4, p. 141.

South East Coast.

360. Stethojulis strigiventer. Benn.

Bleek. Atl. Ichth. Labr., p. 135, tab. 43, fig. 1. Gunth. Cat. 4, p. 140.

South East Coast.

361. Stethojulis kalosoma. Bleek.

Atl. Ichth. Labr., p. 134, tab. 43, fig. 4. Gunth. Cat. 4, p. 142. South East Coast.

362. Platyglossus Hævenii. Bleek.

Atl. Ichth. Labr., p. 111, tab. 42, fig. 3. Gunth. Cat. 4, p. 153. Hood Bay.

363. PLATYGLOSSUS TRIMACULATUS. Quoy and Gaim.

Bleek. Atl. Ichth. Labr., p. 138, tab. 32, fig. 1. Gunth. Cat. 4, p. 153.

Hood Bay.

364. PLATYGLOSSUS MODESTUS. Bleek.

Atl. Ichth Labr., p. 126, tab. 35, fig. 2. Gunth. Cat. 4, p. 157. Engineer Group.

365. PLATYGLOSSUS PŒCILUS. Richards.

Bleek. Atl. Ichth. Labr., p. 115, tab. 39, fig. 4. Gunth. Cat. 4, p. 152.

Engineer Group.

366. Platyglossus melanurus. Bleek.

Atl. Ichth. Labr., p. 109, tab. 46, fig. 1. Gunth. Cat. 4, p. 148. South Cape.

367. Platyglossus Geoffroyi. Quoy. and Gaim.

Bleek. Atl. Ichth. Labr., p. 129, tab. 37, fig. 5. Gunth. Cat. 4, p. 145.

Hood Bay.

368. Platyglossus guttatus. Bl.

Bleek. Atl. Ichth. Labr., p. 124, tab. 35, fig. 1. Gunth. Cat. 4, p. 155.

369. Platyglossus margaritaceus. n. sp.

D. 7/11. A. 2/11. L. lat. 25.

Of compressed form. The height of the body rather more than one-fourth of the total length; snout pointed, teeth prominent. Eyes small; tail truncate. Colour (in spirits) yellowish, darker on the top of the head, with a broad pearly stripe more or less edged with black, extending from the operculum to, or nearly to, the tail, there seems to have been also a large oval pearly spot on the operculum. The fins are yellow, with a small black spot on the first dorsal spine, the last anal ray, and on the middle of the uppermost and lowest caudal rays. Hood Bay.

370. Novacula macrolepidota. Bl.

Bleek. Atl. Ichth. Lab., tab. 31, fig. 6. Gunth. Cat. 4, p, 174. Hula, Hood Bay.

371. Novacula pentadactyla. L.

Bleek. Atl. Ichth, Labr., tab. 30, fig. 4. Gunth. Cat. 4, p. 177. Hood Bay.

372. Julis Dorsalis. Quoy. and Gaim.

Bleek. Atl. Ichth. Labr. p. 94, tab. 34, fig. 4. Gunth. Cat. 4, p. 190.

Engineer Group.

373. Julis Jansenii. Bleek.

Atl. Ichth. Labr. p. 91, tab. 34, fig. 5. Gunth. Cat. 4, p. 187. Engineer Group.

374. Julis Guntheri. Bleek.

Alt. Ichth. Labr. p. 94, tab. 34, fig. 1. Gunth. Cat. 4, p. 189. Engineer Group.

375. Gomphosus Tricolor. Quoy and Gaim.

Bleek. Atl. Ichth. Labr. p. 85, tab. 21, fig 6. Gunth. Cat. 4, p. 193.

Pitt Bay, Moresby Island.

376. Gomphosus varius. Lacep.

Gunth. Cat. 4, p. 193.

Hula, Hood Bay.

377. Coris variegata. Rüpp.

Bleek, Alt. Ichth. Labr. p. 106, tab. 36, fig. 4. Gunth. Cat. 4 p. 198.

Pitt Bay.

378. Coris papuensis. n. sp.

D. 9/14. A. 2/11. L. lat. 52.

Of compressed form. The height of the body is one-fourth of the total length, and about equal to the length of the head. Snout long and pointed; eyes very small; caudal fin truncate. Colour (in spirits) pale yellow, with three or four or more indistinct dark cross bands from the back towards the belly, and with a small bright pearly spot on every scale on ventral half of the body. On the head are three black spots one before the eye, another behind and the third behind that, probably forming a black streak, in the fresh specimens. The fins are colourless, there is a minute black dot on the membrane between the first and second dorsal spine, a still more minute one on the ninth dorsal ray, and a bright ocellus on the second.

South East Coast.

379. SCARICTHYS AURITUS. Cuv. and Val.

Bleek. Atl. Ichth. p. 15, tab. 1, fig. 3. Gunth. Cat. 4, p. 213. Hula, Hood Bay.

380. Callyodon Moluccensis. Bleek. Gunth. Cat. 4 p. 216. Bleek. Atl. Ichth. p. 12, tab. 2, fig. 1.

"Péolé" of the natives. Hood Bay.

381. Callyodon spinidens. Quoy and Gaim. Bleek. Atl. Ichth. p. 13 tab. 2, fig. 2. Gunth. Cat. 4, p. 215. Hula, Hood Bay.

382. PSEUDOSCARUS PENTAZONA. Bleek.

Atl. Ichth. p. 46, tab. 11, fig. 1. Gunth. Cat. 4, p. 231.

Species of Labridae from the South East Coast, previously recorded from other parts of New Guinea, *Cheilinus radiatus*, oxycephalus, and fasciatus; Epibulus insidiator; Hemigymnus fasciatus and melanopterus; Julis lunaris.

PLEURONECTIDÆ.

383. Pseudorhombus guttulatus. n. sp.

D. 75. A. 63.

The height of the body is nearly half the total length. The dorsal fin commences in front of the eyes, which are large, almost in the same plane, and separated by a narrow ridge. Teeth acute, sloping backwards. Colour (in spirits), uniform grey, fins lighter, the whole covered with minute brown dots. Length, 4 inches.

Hood Bay.

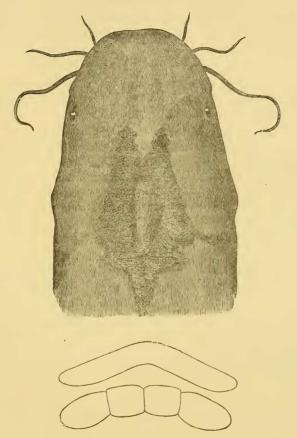
SILURIDÆ.

384. PLOTOSUS ANGUILLARIS. Bl.

Gunth. Cat. 5, p. 24. Arab., Bleek. Atl. Ichth. Silur., p. 98, tab. 95, fig. 2.

"Déréwa" of the natives. Hood Bay.

385. Arius latirostris. n. sp.



D. 1/7. A. 14. P. 1/9.

The height of the body is one-fifth of the total length. Head broad and depressed in front, and broadly rounded at the snout; the diameter of the eye is one-sixth of the width of the interorbital space. Teeth in the upper jaw in a semicircular band, as in the wood cut, vomerine and palatine teeth, also represented in the

wood cut, in square masses divided by a line; top of head and occiput sculptured, as in wood cut. The barbels are shorter than the head, pectoral spine as high as the dorsal. Adipose fin shorter than the dorsal; caudal strongly forked. Length, 20 inches.

Goldie River.

SCOMBRESOCIDÆ.

386. Exocætus arcticeps. Gunth.

Cat. 6, p. 289.

South East Coast.

CLUPEIDÆ.

387. Dussumiera acuta. Cuv. and Val.

Gunth. Cat. 7, p. 466. Cant. Mal. Fish., p. 286. "Caru-Caru" of the natives. Hood Bay.

388. Megalops cyprinoides. Brouss.

Gunth, Cat. 7, p. 471. M. setipinnis Richards, Ann. Nat. Hist, xi., p. 493.

Goldie River. Fresh water.

Engraulis encrasicholoides and Albula conorhynchus, were also taken near Hood Bay.

MURÆNIDÆ.

389. Conger Marginatus. Valenc.

Gunth. Cat. 8, p. 38. *C. noordvicki*. Bleek. Atl. Ichth. Mur, p. 20, ïtab. 23, fig. 2.

"Navia" of the natives. Hood Bay.

390. Murænesox cinereus. Forsk.

Gunth. Cat. 8, p. 46. *M. bagio*. Bleek. Atl. Ichth. Mur., p. 24, tab. 26, fig. 2.

"Tya-Tya" of the natives. Hood Bay.

391. MURÆNA CANCELLATA. Richards.

Voy. Ereb. and Terr., p. 87, pl. 46, figs. 1-5. Bleek. Atl. Ichth. Mur., p. 93, tab. 32, fig. 3. Syn. *M. undulata*, Lacep. Gunth. Cat. 8, p. 110.

"Rupa-rupa" of the natives. Hood Bay.

SYGNATHIDÆ.

392. Gastrotokeus biaculeatus. Bl. Gunth. Cat. 8, p. 194. Cant. Mal. Fish., p. 387. South East Coast.

393. Hippocampus guttulatus. Cuv. Gunth. Cat. 8, p. 202. Many synonyms. South East Coast.

SCLERODERMI.

394. Balistes papuensis. n. sp. D. 3. 1/26. A. 25. L. lat. 26.

Tail with five rows of minutely armed scales on each side of the tail, the longest numbering as many as fourteen indistinct spines; scales of the body very warty and rough. A patch of osseous plates above the gill opening. No groove in front of the eye; soft dorsal and anal fins with rounded profile; caudal rounded; ventral spine movable. Colour greenish with roundish dark spots scattered over the sides of the body, one or two darkish cross bars on the soft dorsal and anal fins, and three on the caudal.

"Aremela" of the natives. Hood Bay.

395. Monacanthus prionurus. Bleek. Atl. Ichth. V. p. 138, tab. 227, fig. 1. Gunth. Cat. 8 p. 234. Hood Bay.

396. Monacanthus scriptus. Valent. Gunth. Cat. 8, p. 252. Bleek. Atl. Ichth. V. p. 141, tab. 227, fig. 4.

Hood Bay.

397. Monacanthus melanocephalus. Bleek. Atl. Ichth. V. p. 127, tab. 223, fig. 1. Gunth. Cat. 8 p. 242. Engineer Group.

398. Monacanthus monoceros. L. Gunt. Cat. 8 p. 251. Bleek. Atl. Ichth. V. p. 140, tab. 226, fig. 2. Hood Bay.

399. OSTRACION SEBÆ. Bleek.
Atl. Ichth. Ostrac. p. 41, tab. 4 fig. 2. Gunth. Cat. 8 p. 261.
"Porroni" of the natives. Engineer Group.

GYMNODONTES.

400. Tetrodon Valentini. Valent.

Gunth. Cat. 8, p. 305. Bleek, Atl, Ichth, Gymnod., p. 80, tab. 4, fig. 1.

Hood Bay.

401, TETRODON LATERNA. Richards.

Voy. Sulph. Zool., p. 124, pl. 61, fig. 8. Bleek. Atl. Ichth. Gymnod., pl. 1, fig. 3. T. hispidus, Gunth. Cat. 8, p. 297.

402. Tetrodon Bennettii. Valent.

Gunth. Cat. 8, p. 301. *T. ocellatus*, Bleek. Atl. Ichth. Gymnod., p. 80, tab. 10, fig. 5.

Hood Bay.

403. TETRODON SCELARATUS. L.

Gunth. Cat. 8, p. 276. P. argentine. Bleek. Atl. Ichth. Gymnod, p. 64, tab. 6, fig. 1.

Hood Bay.

404. DIODON HYSTRIX. L.

Gunth. Cat. 8, p. 306. Bleek. Atl. Ichth. Gymnod., p. 50, tab. 3, fig. 2.

Hood Bay.

BATIDÆ.

405. RHINOBATUS THOUINI. Mull. & Henle. Gunth. Cat. 8, p. 442. Dum. Elasm., p. 500, pl. 9, fig. 2. Hood Bay.

NOTES AND EXHIBITS.

Mr. Macleay exhibited a cast of the right mandible of *Palorchestes Azael*, the fossil which was the subject of Mr. De Vis Paper.

Dr. Mackellar exhibited portions of the liver and lungs of a sheep with large hydatid cysts, and also showed under the microscope specimens of the enclosed embryos. These probably belong to a Tapeworm (*Tenia echinococcus*), the proscolex stage of which